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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,003	03/07/2005	Daniele Franceschini	23223	4616

535 7590 06/26/2008

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EXAMINER	
HERRERA, DIEGO D	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
06/26/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,003	FRANCESCHINI ET AL.	
	Examiner	Art Unit	
	DIEGO HERRERA	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Claims 1-10, have been amended as follows:

Claim 1-8, have been amended.

Claim 9-10, have been cancelled.

Abstract has been included as requested by office.

New formal drawings have been included.

Response to Arguments

Applicant's arguments filed 3/26/2008 have been fully considered but they are not persuasive.

In response to applicant's arguments concerning claims 1-8, the applicant argues that the references of Furuskar et al. and Cao et al. do not discloses in combination or alone the claim limitations, however, examiner disagrees. Claims must be given their broadest reasonable interpretation, hence, the cited references teach negotiating resources in a network adjusting parameters to provide quality of service throughout the network; therefore, negotiation of resources is done according to the information obtained to provide service throughout the network allocating resources appropriately adjusted for optimal throughput. The system is dynamic in the sense that it is always negotiating through the information given by parameters obtained to provide proper services.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furuskar et al. (US publication 20020102984), and in view of Cao et al. (US publication 20020089952 A1).

Regarding claims 1 and 7. Furuskar et al. discloses method for dimensioning a network based on Code Division Multiple Access techniques or CDMA

(paragraph [0003], Furuskar et al. teaches CDMA system) for input parameters that are representative of coverage requirements and/or capacity requirements and/or quality requirements able to provide at least a value of maximum sustainable load per cell given a plurality of services provided, the method comprising the steps of:

-determining for each cell a load factor per cell on the basis of the input parameters (paragraph [0019], Furuskar et al. teaches cell capacity, power control, attenuation);

- verifying whether the determined load factor corresponds to the maximum load sustainable by the cell; and, if the determined load factor exceeds the maximum sustainable load (paragraph [0009], [0021], Furuskar et al. teaches maximum or high load);

- however, Furuskar et al. does not specifically teaches dynamically negotiating at the Radio Resource Management level radio resources to be allocated to at least one of the services provided by the network into the cell in such a way that the determined load factor per cell becomes smaller than or equal to the maximum sustainable load or is optimized by taking into account the characteristics of the network, nevertheless, Cao et al. does teach the limitation (paragraph [0007], [0009]-[0012], [0021], Cao et al. teaches RRM).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Furuskar et al. to specifically include dynamically negotiating at the Radio Resource Management level radio resources to be allocated to at least one of the services provided by the network

into the cell in such a way that the determined load factor per cell becomes smaller than or equal to the maximum sustainable load or is optimized by taking into account the characteristics of the network as taught by Cao et al. for the purposes of packet transmission scheduling.

Consider claim 2. Method as claimed in claim 1, the combination discloses wherein the load factor per cell is determined by taking into account real "power control" procedures, by attributing to the ratio between useful signal power and total interference density of the cell a normal or Gaussian distribution in decibels (paragraph [0010], [0140]-[0143], Cao et al. teaches power control and limits).

Consider claim 3. The method as claimed in claim 2, the combination discloses wherein the step of determining the load factor per cell is carried out for the uplink radio path.

Consider claim 4. Method as claimed in claim 3, the combination discloses characterized in that the step of dynamically negotiating the radio resources to be allocated to at least one of the services provided by the network in the cell comprises the step of dynamically negotiating one among the functionalities of

-packet scheduling (paragraph 0003, Cao et al. teaches packet scheduling);

-congestion control (paragraph 0009-0012, Cao et al. teaches controlling load with QoS); and

- admission control (paragraph 58, 59, Cao et al. teaches admission control).

Consider claim 5. The method as claimed in claim 2, the combination discloses wherein the step determining the load factor per cell is carried out for the downlink radio path (paragraph [0019], Furuskar et al. teaches cell capacity,

power control, attenuation).

Consider claim 6. Method as claimed in claim 5, the combination discloses wherein the step of dynamically negotiating the radio resources to be allocated to at least one of the services provided by the network in the cell comprises the step of dynamically negotiating one among the functionalities of

-code management (paragraph [0084]-[0087], Cao et al. teaches management of codes);

-power management (paragraph [0119]-[0121], Cao et al. teaches power constraints);

-packet scheduling (paragraph 0003, Cao et al. teaches packet scheduling);

- congestion control (paragraph 0009-0012, Cao et al. teaches controlling load with QoS); and

- admission control (paragraph 58,59; Cao et al. teaches admission control).

Consider claim 8. the method as claimed in claim 7, the combination discloses the further steps of

-determining for each service a load factor per cell (UDL) and Corresponding values of power per channel for the downlink radio path (paragraph [0019], Furuskar et al. teaches cell capacity, power control, attenuation);

- verifying whether the power per channel of at least one service exceeds power limits prescribed for said service and, if the power per channel of at least one service exceeds the prescribed power limits (paragraph [0009], [0021], Furuskar et al. teaches maximum or high load);

-- However, Furuskar et al. does not specifically teaches dynamically negotiating

the radio resources to be allocated to the Radio Resource Management level so as to update the maximum sustainable load, nevertheless, Cao et al. does teach the limitation (¶: [0007], [0009]-[0012], [0021], Cao et al. teaches RRM). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Furuskar et al. to specifically include negotiating at the Radio Resource Management level so as to update the maximum sustainable load or is optimized taking into account the characteristics of the network as taught by Cao et al. for the purposes of packet transmission scheduling.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIEGO HERRERA whose telephone number is (571)272-0907. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Diego Herrera/
Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617